CBSE TEST PAPER
Class 10 mathematics
Ch. Co-ordinate

Q1. Find the co-ordinates of a point which divide the segment AB in the ration 3:5 internally, where   A (4 , –1) and B(–2, 4).

Q2. Find the co-ordinates of points of trisection of the segment joining points (4, –8) and (7, 4).

Q3. In what ratio does the point (3, 12) divide line segment joining the points (1, 4) and (4, 16)?

Q4. Determine the ratio in which the line $3x + y – 9 = 0$ divides the segment joining the points (1, 3) and (2, 7).

Q5. Find the point which represent 3/4 of the distance from (3, 2) and (–5, 6).

Q6. (a) In what ratio the line segment joining the points (–2, –3) and (3, 7) divided by y-axis? Also, find the co-ordinates of the point of division.

(b) In what ratio the line segment joining the points (2, –3) and (5, 6) divided by y-axis? Also, find the co-ordinates of the point of division.

Q7. If A (5, –1), B (–3 , –2) and C (–1, 8) are the vertices of ∆ABC, find length of median through A And also find the co-ordinates of the centroid.

Q8. Find the co-ordinates of vertices of triangle, if the co-ordinates of mid points of sides of the Triangle are:

(a) (3, 2) , (4, 4) and (1, 3)

(b) (3, 4) , (4, 1) and (2, 0)

Q9. Find co-ordinate of centroid of triangle whose vertices are:

(a) (–2, 1) , (–3, 4) and (8, –11)

(b) (–2, 4) , (7, –3) and (4, 5)

Q10. Find the third vertex of triangle, if its two vertices are (–4, 1) and (5, 2) and its centroid is (1, 3).

Q11.Three consecutive vertices of a parallelogram are (–2, –1), (1, 0) and (4, 3). Find its fourth vertex.

Q12. Find the co-ordinates of points which divide the line segment joining the points (–4, 0) and (0, 6) in four equal parts.

Q13.Find the value of x such that PQ = QR, where the co-ordinates of P, Q and R are (6, –1), (1,3) And (x, 8).

Q14. Find the point on x-axis which is equidistant from points (7, 6) and (–3, 4).

Q15. A line segment joining the points (3, –4) and (1, 2) is trisected at the points P and Q. If the co-ordinates of P and Q are (p, –2) and (5/3, q) respectively. Find p and q.

Q16. Determine ratio in which the point P(m, 6) divides the join of A(–4, 3) and B(2, 8). Also find m.

Q17. Prove that the four points whose co-ordinates are (0, 5), (–2, –2), (5, 0) and (7, 7) form rhombus.

Q18. Prove that (–5, 6), (3, 0) and (9, 8) are the vertices of an isosceles right-angled triangle.

Q19. The co-ordinates of the mid points of the sides of a triangle are (1, 1) , (2, –3) and (3, 4). Find The co-ordinates of its centroid.

Q20. If two vertices of an equilateral triangle are (0, 0) , (3,√3), find the third vertex.

Q21. Find the lengths of the medians of a ∆ABC whose vertices are A (7, –3) , B (5, 3) and C (3, –1).

Q22. The line joining the points (2, 1) and (5, 8) is trisected at the points P and Q. If point P lies on the line $2x – y + k = 0$, find the value of k.

Q23. If the point (x, y) is equidistant from the points (a+ b , b –a) and (a – b, a + b), prove that bx = ay.

Answers

Ans 1.(7/4, 7/8)Ans2. (5, –4) and (6, 0)Ans3. 2:1Ans4. 3:4Ans5.(–3, 5)Ans6. (a) 2:3 and (0, 1)(b) 1: 2Ans7.65 and (1/3, 5/3)Ans8. (a) (0, 1) , (6, 3) and (2, 5)(b) (1,3) , (5, 5) and (3, –3)Ans9.(a) (1, –2)(b) (3, 2)

Ans10. (–1, 3)   Ans11. (1, 2)Ans12. (–3, 3/2) , (–2, 3) and (–1, 9/2)   Ans13. 5 or –3

Ans14. 3   Ans15. p = 7 /3 and q = 0   Ans16. 3:2 , m =–2/5   Ans19. (2, 2/3)

Ans20.(0,2√3) or (3, -√3) Ans21. 5, 5,√10 Ans 22. –8